

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILI	NG DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/693,419 10/		/20/2000	Chien Fang	112025-0417	1264	
24267	7590	12/04/2003	EXAMI	EXAMINER		
		ENNA, LLP	TSEGAYI	TSEGAYE, SABA		
88 BLACK FALCON AVENUE BOSTON, MA 02210				ART UNIT	PAPER NUMBER	
,				2662	7	
				DATE MAILED: 12/04/2003	3 · · · · · · · · · · · · · · · · · · ·	

Please find below and/or attached an Office communication concerning this application or proceeding.

<u>'</u>					<del> </del>					
			Application No. Applicat		Applicant(s)					
Office Action Summary			09/693,419	9	FANG ET AL.					
			Examiner		Art Unit					
			Saba Tse		2662					
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply									
THE I - Exter after - If the - If NO - Failu - Any r	ORTENED STATUTORY PERIOD FOMAILING DATE OF THIS COMMUNIONS SIX (6) MONTHS from the mailing date of this common period for reply specified above is less than thirty (30 period for reply is specified above, the maximum stare to reply within the set or extended period for reply eply received by the Office later than three months and patent term adjustment. See 37 CFR 1.704(b).	CATION. of 37 CFR 1.136 unication. I) days, a reply v tutory period will will, by statute, c	6(a). In no ever within the statut Il apply and will cause the applic	nt, however, may a reply be tim tory minimum of thirty (30) days expire SIX (6) MONTHS from to cation to become ABANDONEC	ely filed  will be considered time the mailing date of this c (35 U.S.C. § 133).	ly. ommunication.				
1)🖾	Responsive to communication(s) file	d on <u>20 Oc</u>	<u>tober 2000</u>	<b>!</b> -						
2a) <u></u> □	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.									
3)□	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.									
Disposition of Claims										
5)□ 6)⊠ 7)⊠	<ul> <li>Claim(s) 1-12 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdrawn from consideration.</li> <li>Claim(s) is/are allowed.</li> <li>Claim(s) 1-5,7,8 and 10-12 is/are rejected.</li> <li>Claim(s) 6 and 9 is/are objected to.</li> <li>Claim(s) are subject to restriction and/or election requirement.</li> </ul>									
Applicati	on Papers									
9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.										
Priority under 35 U.S.C. §§ 119 and 120										
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> <li>13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.</li> <li>37 CFR 1.78.</li> <li>a) The translation of the foreign language provisional application has been received.</li> <li>14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.</li> </ul>										
Attachment										
2) Notice	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (P7 nation Disclosure Statement(s) (PTO-1449) Pa			4) Interview Summary ( 5) Notice of Informal Pa 6) Other:						

Application/Control Number: 09/693,419

Art Unit: 2662

### **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1, 7, 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyon et al. (US 6,333,917) in view of The Admitted Prior Art (page 1-3).

Regarding claims 1 and 8, Lyon discloses, in Fig. 4, a method, for controlling congestion in a network, the network including a switch (46) having a queue (54) for receiving packets transmitted over the network from a plurality of source connections (50, 68); a line card (48); and drop/tag (58, 60). The method comprises the steps of determining whether to mark a packet as an indication of congestion based on fill of the queue, and marking the packet as the packet leaves the queue; in response to detecting a packet as being marked, discarding the packet in accordance with a random probability (column 6, line 35-column 8, line 59; Fig. 4).

Further, Lyon's invention relates to congestion control and avoidance in a packet network, such as ATM network. Further, Lyon suggests that the invention can be used in all packet networks, including IP.

However, Lyon does not expressly disclose a first line card and an output line card translating the packets into proper formants.

Art Unit: 2662

The Admitted Prior Art teaches a first line card and an output line card. The first line card converts arrived packets from IP packets into ATM packets. The output line card converts the sequence of segments in the proper formats (pages 1-3).

Therefore, it would have been to one ordinary skill in the art at the time the invention was made to add a first line card and an output line card, such as suggested by The Admitted Prior Art, in the apparatus of Lyon in order to provide a flexible communication system.

Regarding claims 7 and 10, Lyon discloses the apparatus wherein the circuit further comprises:

logic for detecting a priority class of at least a selected packet of the input computer network packets, and in response to the priority class, selecting class specific values in calculating a probability for discarding an output packet corresponding to the selected input packet (column 2, lines 20-24; column 8, lines 1-13).

Regarding claim 11 and 12, Lyon in view of the Admitted Prior Art discloses all the claim limitations as stated above, except for a computer readable device and electromagnetic signal containing instruction.

However, It would have been obvious to one ordinary skill in the art at the time the invention was made to use software-based machines. The benefit using computer-readable device is that programs can be changed and upgraded and new futures are added easily than hardware changes.

Application/Control Number: 09/693,419 Page 4

Art Unit: 2662

3. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyon in view or The Admitted Prior Art as applied to claims 1 and 8 above, and further in view of Wisniewski et al. (US 5,687,176).

Lyon in view of the Admitted Prior Art discloses all the claim limitations as stated above. Further, The Admitted prior Art teaches conversion of packets into the proper format. However, Lyon in view of the Admitted Prior Art does not expressly disclose an ASCI chip and a microprocessor mounted on the output line card.

Wisniewski shows in Fig. 1, a line card that includes an ASCI 12, a chip 14 and a microprocessor 16.

It would have been obvious to one ordinary skill in the art at the time the invention was made to include an ASCI 12, a chip 14 and a microprocessor 16, such as that suggested by Wisniewski, in the line card of Lyon in view of the Admitted Prior Art in order to convert packets into proper format.

### Allowable Subject Matter

4. Claims 6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Xu et al. (US2003/0048792) discloses network devices that perform high-speed

traffic forwarding, and support various levels of QoS for multiple protocols such as ATM, IP, and MPLS over the same network.

Yoo discloses ultra-low latency multi-protocol optical routers for the next generation Internet.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (703) 308-4754. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

ST November 25, 2003

> V JOHN PEZZLO PRIMARY EXAMINER